

as allegedly being obvious over Tu, Musland-Sipper and Ray '322. Lastly, Claims 9-39 stand rejected as allegedly being obvious over Tu, Ray, Simpson and Bateman. These rejections are respectfully traversed.

Applicants' invention as set forth in Claim 1 is directed to an apparatus for providing weather information onboard an aircraft, and includes a processor unit which processes weather information after it is received onboard the aircraft from a ground-based source containing a plurality of types of weather information, and a graphical user interface which provides a graphical presentation of the weather information to a user onboard the aircraft. As claimed, the graphical user interface includes a user selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft.

Claims 6 and 8 also relate to an apparatus for providing weather information onboard an aircraft, and include a processor unit and a graphical user interface. These claims, like Claim 1, recite that the graphical user interface includes a user selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft. In Claim 6, the graphical user interface also provides a plan view of the weather information and the position of the aircraft to a user onboard the aircraft, and includes a user selectable option for centering the plan view on the position of the aircraft, even as the position of the aircraft changes. The graphical user interface in Claim 8 provides a plan view of the weather information for a selected altitude to a user onboard the aircraft, and includes a user selectable option for changing the selected altitude.

Claim 9 is directed to a method of providing convection information to an aircraft, and includes the steps of collecting convection information at a centralized data center,

providing a specific request from the aircraft for the convection information, and transmitting the convection information from the data center to an aircraft in response to the request.

The other independent claims, i.e., Claims 14, 19, 24, 28, 32 and 35, relate to a method of providing different types of weather related information to an aircraft. These claims include the step of providing a specific request from the aircraft for the information, and transmitting the information from the centralized data center to the aircraft in response to the request.

In accordance with Applicants' claimed invention, the user is able to request specific weather information to be transmitted from a ground-based source or a data center. In this manner, the information received onboard the aircraft can be tailored to suit the user's specific needs.

The primary citation to Tu is discussed at length in the Description of the Related Art section of the specification. As stated in the Office Action, Tu discloses an apparatus for providing weather information onboard an aircraft, and includes a processor unit to processes weather information after it is received onboard the aircraft from a ground-based source.

The secondary citation to Musland-Sipper relates to a system for communicating between an aircraft and a ground control station. This patent was relied upon in the Office Action for providing a graphical user interface with a user selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft.

Simpson relates to a system for providing weather information along a travel route, and was cited for its teaching of providing a ground-based source containing a plurality of types of weather information.

It is respectfully submitted, however, that it would not have been obvious to one skilled in the art to modify the weather information system in Tu to include a user's selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft.

Tu's cockpit weather information system allows an aircraft to, without request, receive weather information on an updated, ongoing basis. This system also allows the user to request specific weather information by selecting an icon as shown, for example, in Figure 4. By selecting an icon, information is retrieved from memory and displayed on the map 38 (see column 6, lines 20-29).

In Tu's established system, therefore, updated weather information is continually received, thus eliminating the need to communicate with the ground station for this purpose, and specific weather information can be requested, albeit from memory. It is submitted, therefore, that there is no need (i.e., incentive or motivation) to modify the system in Tu as proposed in the Office Action. To do so would change the fundamental character of Tu's information system and teach away from an important feature -- the use of the P-channel (packet channel) to continuously collect, compile and send weather information to the aircraft.

Paragraph 7 of the Office Action asserts that it would have been obvious to modify the system in Tu to include a graphical user interface that allows a user to request weather information because the exact information wanted by the user can be transmitted and unnecessary information will not have to be transmitted. It is respectfully submitted, however,

that Tu already has the capability of requesting specific information as discussed above, and transmitting the information from the ground station is easily accomplished in Tu by use of the P-channel. It is respectfully submitted, therefore, that absent hindsight, it would not have been obvious to one skilled in the art to modify the weather information system in Tu to include a graphical interface capable of requesting specific weather information for transmission from the ground-based source.

The patent to Ray relates to a cellular weather information system for an aircraft and was cited for its teaching of providing a specific request from the aircraft for weather information, and transmitting the weather information from a data center to an aircraft in response to this request. Ray fails to compensate for the deficiencies in the art discussed above.

With respect to Applicants' independent Claims 1, 6 and 8, it is respectfully submitted that it would not have been obvious to modify Tu in the manner proposed in the Office Action for the reasons discussed above. Accordingly, reconsideration and withdrawal of the rejections of Claims 1-8 under 35 U.S.C. §103 is respectfully requested.

With respect to Claims 9-39, the rejection applied to these claims is submitted to be overcome for substantially the same reasons discussed above with respect to independent Claims 1, 6 and 8. Specifically, it would not have been obvious to modify Tu to include the ability of Ray's system for requesting weather information from the aircraft and transmitting the weather information from the data center to the aircraft in response to this request. As discussed in detail above, Tu already has the ability to request specific weather information, and thus only through impermissible hindsight would one skilled in the art have modified Tu in the manner proposed in the Office Action.

Bateman relates to an aircraft weather information system and was cited for its teaching of the capability of graphically displaying convection information, turbulence information and icing information. The Bateman patent fails to compensate for the deficiencies in the art discussed above.

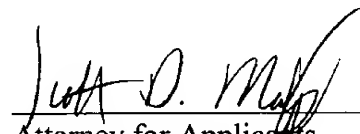
Reconsideration and withdrawal of the rejection of Claims 9-39 under 35 U.S.C. §103 is therefore requested.

Accordingly, it is respectfully submitted that Applicants' invention as set forth in independent Claims 1, 6, 8, 9, 14, 19, 24, 28, 32 and 35 is patentable over the cited art. In addition, dependent Claims 2-5, 7, 10-13, 15-18, 20-23, 25-27, 29-31, 33, 34 and 36-39 set forth additional features of applicants' invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to Honeywell's address given below.

Respectfully submitted,

  
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Attorney for Applicants  
Scott D. Malpede  
Registration No. 32,533

HONEYWELL INTERNATIONAL INC.  
Law Department  
101 Columbia Road  
P.O. Box 2245  
Morristown, New Jersey 07962-2245

SDM/vmm  
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